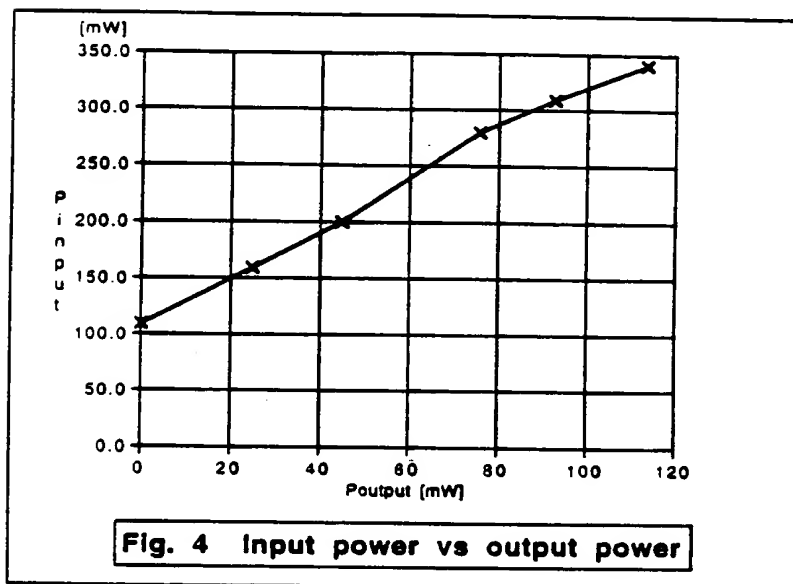
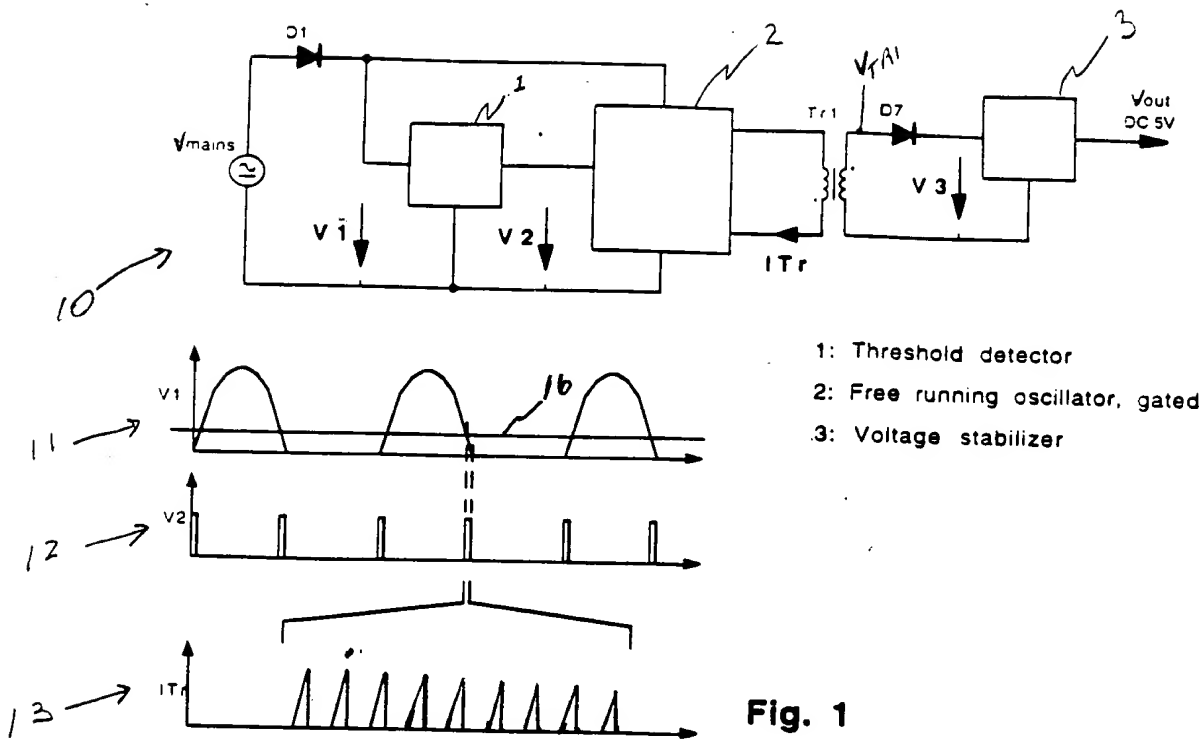


009090-0506560



The schematic diagram illustrates a 100W audio amplifier, divided into three functional blocks:

- Block 1:** This section handles the input signal and provides initial amplification. It includes a transformer T_1 connected to the mains (V_{mains}). The input signal V_1 is coupled through a network of resistors (R_1, R_2, R_3, R_4) and capacitors (C_1, C_2). A diode D_1 and a Zener diode Z_{12} are used for signal conditioning. The output of Block 1 drives the base of the output transistor Q_1 .
- Block 2:** This block contains the main power output stage. It features a complementary push-pull arrangement with a PNP driver transistor Q_2 and an NPN output transistor Q_1 . The output is taken from the emitter of Q_1 through a load resistor R_7 . Biasing is provided by a network of resistors (R_5, R_6) and capacitors (C_3).
- Block 3:** This block is responsible for the power supply. It starts with a transformer T_2 connected to the mains. The secondary winding is connected to a bridge rectifier D_{11-D14} . The rectified output is filtered by a capacitor C_{11} and then regulated by an LM2936 voltage regulator (IC_1) to provide a stable 5.0V supply. This regulated supply is used for the base of Q_2 and other biasing points. A current source I_{Tr} is also shown, controlled by a microcontroller.

Key components and values are specified throughout the diagram, including various resistors (e.g., $1M, 100k, 1k, 47k, 220k$), capacitors (e.g., $100\mu, 47\mu, 1n, 470p$), and diodes (e.g., $1N4001, 1N4148, 1N4007$). The transformer T_1 has a primary of 230V and a secondary of 0.05mm CuN. The transformer T_2 has a primary of 230V and a secondary of 0.05mm CuN. The output transformer has a primary of 230V and a secondary of 0.05mm CuN.

Fig. 2

005050-0506560

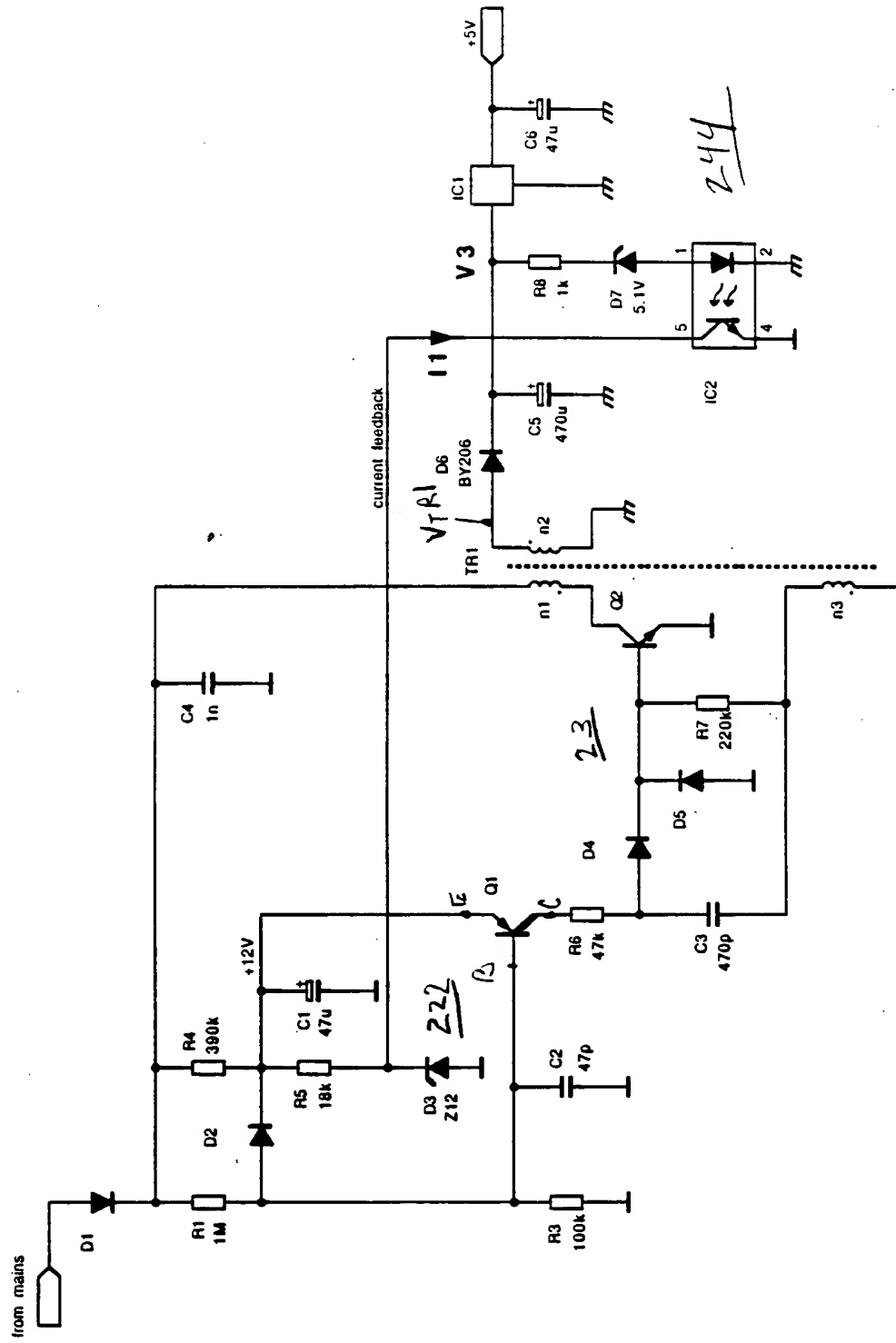


Fig. 3